



Energy for India
CAIRN ENERGY INDIA PTY LIMITED

(Incorporated in New South Wales, Australia – ACN 002 066 784)

**EXPRESSION OF INTEREST (EOI) FROM INDIAN CONTRACTORS FOR EXECUTION OF
MECHANICAL AND ELECTRICAL & INSTRUMENTATION WORKS AT MANGALA WELL PADS,
BARMER, RAJASTHAN**

Cairn Energy India Pty Ltd. ("CEIL") is the Operator on behalf of Joint Venture partners CEIL, Cairn Energy Hydrocarbons Limited and Oil and Natural Gas Corporation, of the Contract Area RJ-ON-90/1 at Barmer in the state of Rajasthan. The RJ-ON-90/1 block contains a number of major oil discoveries namely Mangala, Bhagyam, Aishwariya and other fields. The Mangala field is the largest onshore oil discovery in India since 1985. The Mangala field development consists of well pad facilities and processing hub named Mangala Processing Terminal (MPT) which is currently under implementation.

CEIL on behalf of its joint venture partners, invites reputed Indian Contractors with demonstrated capability and HSE performance to express their interest, for prequalification to participate in the Competitive Bidding Process for the execution of Mechanical and Electrical & Instrumentation works as detailed below:

SCOPE OF WORK

Part-A: Mechanical / Piping Works

The Contractor shall be well equipped with manpower, consumables, tool& tackles, lifting machinery, etc., to carry out the below listed activities very safely and to achieve the targeted Schedule.

- Fabrication & erection of piping from piping materials supplied by Company in accordance with specification, codes, standards & applicable drawings.
- Arrange skilled and un-skilled workforce as required.
- Arrange for required machinery for carrying out the work such as trucks, trailers, mobile welding generators (diesel driven), welding rectifiers, hydras & cranes of adequate capacity, handling devices, etc.
- Arrange tools and tackles
- Arrange scaffolding wherever required, as per safe practices
- Arrange all types of welding consumables, welding cables, backing rings, portable welding ovens, etc.
- Supply of jointing material as required for all threaded joints
- Supply of painting materials and application of painting as per specification
- Procurement and supply of residual piping and structural materials.
- Supply of all equipments and materials required for testing and inspection
- Pre-fabrication of pipes in suitable lengths

- Structural steel fabrication & erection as per applicable specifications of Chemical storage shed, pipe cross-over, service platforms, pipe supports as required and field routed piping, etc.
- Field routing and erection of miscellaneous piping, valves & specifications
- Carrying out all piping insulation and sheathing works as per specifications
- Flushing, Cleaning and Testing of all piping systems
- All associated civil works including all supplies

Obtaining all statutory clearances required for fabrication, erection / completion of piping including inspection from Statutory Authorities

Part-B : Electrical & Instrumentation Works

The Contractor shall be well equipped with manpower, consumables, tool& tackles, lifting machinery, etc., to carry out the below listed activities very safely and to achieve the targeted Schedule.

Electrical

The Contractor shall be responsible for collection of free issue items from Company store, loading / unloading, handling, transport to work site, storage, installation, panels erection, cable & cable trays work, supports, cable terminations, field Instruments calibration & Installation, cable tray supports / panel frames / JB supports / field Instruments support stanchions fabrication, shot blasting, painting & erection, cable continuity checks, SS tubing for field Instruments & pressure testing, cold & hot loop checks, etc., all necessary to complete the Works. The Contractor shall also be responsible for ensuring the correctness and fitness for purpose of all materials & items of plant and will advise the Company Engineer In charge for any damage or deficiencies. The Contractor shall ensure that adequate protection is provided for all components during any storage, loading and transportation activities, by providing adequate support bearers during the transport

Contractor shall collect Company free supply material from their storage yards which may be within or outside MPT (Mangala Process Terminal).

The Contractor shall mobilize required manpower, tools & tackles, machinery, etc. to complete the scope of work in a committed Schedule time. Contractor shall also procure any missing items required for the work.

The basis of work to be carried out by the Contractor shall be based on the drawings, SLD, standards, specifications of Mangala Process Terminal (MPT) and of good engineering practices shall be followed during installation.

Instrumentation

Company will provide the following items at their stores (within or outside MPT) and the Contractor shall transport safely to the required well pad sites.

- All field instruments like transmitters, pressure and temperature gauges, thermocouples, orifice assemblies, solenoid valves, control/on-off valves with accessories, safety relief valves, level gauges, level transmitter, rotameters, self actuated pressure control valves, etc.,
- Yokogawa panels, F&G panels, etc.,

- Instrument & Power Cables, Cable trays (Ladder and perforated cable trays and accessories), Cable glands, Lugs, etc,
- All impulse pipe fittings, flanges and valves for impulse lines, gaskets, bolts and nuts for flanges necessary for primary piping and instrument air supply.
- Tubes and tube fittings
- Bolts and nuts required for tray supports, long bolts required for fixing junction box, U-bolts with nuts, clamps for copper tubes, cables and pipes. Mounting screws for instruments / boxes.
- All steel structures and metal sheet required for fabrication of accessories for ladder trays, all supports required for instruments and installation items, impulse tube supports, cable tray bottom channel supports.
- JBs
- F&G detectors

MATERIAL AND SERVICES TO BE PROVIDED BY THE CONTRACTOR

All material and consumables, other than free issue material listed above, as required for installation work of instrumentation shall be procured and supplied by Contractor. Contractor shall also procure any missing items required for the work.

Some of the items that need to be supplied by contractor are as follows but not limited to:

- All industrial gases like oxygen, acetylene or inert gases, compressed air and all types of electrodes, brazing rods, flux etc. for welding purposes, with necessary facilities for testing the welded joints.
- Welding electrodes, soldering, flux and lead, brazing rods, lugs, wire sleeves for instrument cables.
- Teflon tape and other pipe joining compounds for threads.
- Paints, primers and solvent.
- Tags/ferrules for identification of tubes / wires at panel/junction boxes.
- Aluminium name plate tags for identification of single and multipair / multicore cables at the instrument end, junction box end and the control room end.
- All accessories for electrical wiring like cable lugs, ferrules for identification of cables, cable clamps etc.
- Spool pieces and blinds for testing wherever required.
- All tools like welding sets, pulleys, cranes etc., required for installation work.
- Cotton tape by Contractor for temporary support etc. to instruments.
- Standard facilities like test benches, calibration equipment required for erection / installation should be made available at site in adequate quantity.

- Copies of all relevant standards / codes used in the job.
- Storage and security of their materials and also Company's equipment and materials while in Contractor's custody and till the Contractor's work is deemed completed.
- Deputation to site sufficient number of skilled and unskilled labour and expert supervision as considered adequate at all stages of work.
- Threading & bevelling of Nipples from pipe pieces, welding, and protection of Instruments by adequate bags till commissioning, etc
- During the course of execution if the spare entry plugs of JB's /Local panels, cover bolts, gaskets, etc are missed/lost the same shall be provided by the Contractor.
- Portable instrument air compressor
- Nitrogen cylinders if required for testing, inspection, etc during execution of work
- Testing and inspection equipment
- Construction equipment
- Plugs for plugging the pressure gauge connections on control valve positioners, AFR's etc.
- Any other item not specified, but required for the completion of the job.

INSTALLATION

This section describes technical requirements for instrument Installation work.

- The instrument installation work includes all activities like installation, inspection, testing and pre-commissioning related to instrumentation.
- Instrumentation works shall be performed in accordance with the technical specifications, drawings and schedules supplied during the execution and time to time instructions received from Company during the progress of the work. In case of discrepancy in the drawings, specifications, or schedule of quantities, the Contractor should bring the matter to the notice of Company.
- The Contractor shall carry out work in co-ordination with other agencies and also give them the desired necessary assistance.
- Contractor to possess at site copies of all standards / codes wherever applicable used to execute job.
- Contractor's scope of work shall include the Instrument installation work and the same shall be deemed to be complete once the commissioning of the Well Pad is done.
- Contractor to maintain the quality records at the site for the various activities done during installation and testing of Instruments. The quality records shall be submitted to Company Engineer in-charge in required sets.

- All the drawings used by the Contractor shall be of the latest revision issued by the Company and the superseded drawings shall be marked superseded and shall be kept separately or destroyed. Contractor to give access to the Company's quality auditors for their quality audits.
- Contractor shall deploy all the necessary work force, tools, tackles, supervisors so that the work specified in this contract shall be completed within the agreed project schedule.
- The activities listed below are not exhaustive and any other activity not listed here in but is required for the effective installation and operation of the instruments shall be in the Contractor's scope of work.

Completion schedule for the entire scope of work shall be Eight (8) months from the date of award.

Interested Vendors shall submit the following documents as a minimum with their EOI for pre-qualification:

1. Letter of interest with detailed company information as follows:
 - State the name of the parent Company.
 - Organization structure.
 - Manpower resources.
 - Equipment resources
 - Monitoring and control mechanisms.
 - Details of softwares used for design verification / validation.
 - Details of technical Collaboration, if any.
2. Company's financial performance documents i.e. Audited Balance Sheets, Profit and Loss Account & Cash Flow Statement for the last 3 years & following details separately:
 - Company Turnover based on last 3 audited/Financial statement
 - Company's Net Worth based on last 3 audited/Financial statement
 - Return on Equity based on last 3 audited/Financial statement
 - Working Capital based on last 3 audited/Financial statement
 - State the banker's name, address and Solvency certificate from the bank indicating the credibility limit in financial terms.
3. Details of current and projected commitment.
4. Information regarding any current litigation in which the Bidder is involved.
5. Details of Health, Safety & Environment (HSE) and Quality Assurance and Control (QA/QC) systems followed including HSE & QA/QC policies & manuals of the Company.

BID EVALUATION CRITERIA

1. CEIL will examine the EOI for its completeness, review the performance through inspection and verification, whether they are complete and whether the details furnished are in order.
2. **Experience:** Contractor shall submit list of at least 5 (five) similar works executed in the last five years for leading Corporate / Industrial House / PSU and work currently under execution. Brief scope of work, work-site location, scheduled and actual completion dates, award value and concluded value, names and contact details of clients for reference. Certificates of satisfactory completion of work must also be provided.
3. Contractor should have experience of similar works executed / completed in past of their own in the main field of work. Preference shall be given for the contractors who have their own experience in

Electrical and Instrumentation installation works. However, if contractor does not have their own experience, they can associate a partner/s or sub-contractor/s who has the requisite experience in the field and submit similar details of their associate/s along with document of agreement and terms of association for performing the works related to this specific work.

3. Single contract value for similar jobs of more than Rs.5 Crore for one of the contracts or up to a minimum of a combined value of Rs.12 Crore for three projects executed in a time period of 12 months.
4. The combined annual turnover of the Bidder should be more than Rs15 Crore during the last two of the five preceding financial years.

CEIL reserves the right to accept or reject any EOI at any time without any liability to the applicants or any obligation to inform the applicants of the grounds for the action.

Interested Contractors are requested to send the above details with Item Reference within 14 days of publication to this EOI as detailed below:

All information and documentation shall be provided at address below within 14 days of publication of this EOI by e-mail as attached PDF file and via courier to:

Director - P&SCM
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